

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**OPERATOR**

☐ Initial Report ☒ Final Report

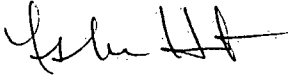
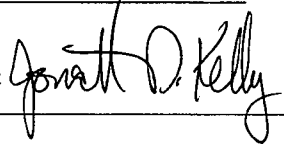
Name of Company <b>ConocoPhillips Company</b>	Contact <b>Lisa Hunter</b>	
Address <b>3401 E. 30<sup>th</sup> Street, Farmington, NM 87402</b>	Telephone No. <b>505-326-9786</b>	
Facility Name <b>San Juan 28-7 Unit 268</b>	Facility Type <b>Gas Well</b>	
Surface Owner <b>BLM</b>	Mineral Owner <b>Federal</b>	API No. <b>3003923356</b> <b>SF-078840</b>

**LOCATION OF RELEASE**

Unit Letter <b>N</b>	Section <b>19</b>	Township <b>27N</b>	Range <b>07W</b>	Feet from the <b>1080'</b>	North/South Line <b>South</b>	Feet from the <b>1625'</b>	East/West Line <b>West</b>	County <b>Rio Arriba</b>
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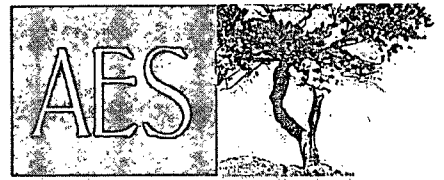
Latitude 36.55418 Longitude -107.61955

**NATURE OF RELEASE**

Type of Release: <b>Unknown Historic contamination</b>	Volume of Release <b>300 yds</b>	Volume Recovered <b>300yds</b>
Source of Release <b>Associated with BGT closure at location</b>	Date and Hour of Occurrence <b>Unknown</b>	Date and Hour of Discovery <b>07/26/2012</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? <b>N/A</b>	
By Whom? <b>N/A</b>	Date and Hour <b>N/A</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>N/A</b>	
If a Watercourse was Impacted, Describe Fully.* <b>N/A</b>		<b>RCVD APR 12 '13</b> <b>OIL CONS. DIV.</b> <b>DIST. 3</b>
Describe Cause of Problem and Remedial Action Taken.* <b>Historic contamination associated with former Below Grade Tank at location.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>Historic contamination was discovered with BGT removal. February 21, 2013, complete excavation was 35' X 30' X 8' in Depth, and 300 c/yds of soil was transported to IEI Land Farm. 300 c/yds of clean soil was transported from Aztec Machine Company and placed in excavation site. Excavation terminated at Sandstone. February 26<sup>th</sup>, Potassium permanganate was applied, resampled February 27<sup>th</sup> with levels below NMOCD action levels and approved to back fill by NMOCD.</b>		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Lisa M. Hunter</b>	Approved by Environmental Specialist: 	
Title: <b>Field Environmental Specialist</b>	Approval Date: <b>5/21/2013</b>	Expiration Date:
E-mail Address: <b>Lisa.Hunter@cop.com</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <b>April 10, 2013</b>	Phone: <b>505-326-9786</b>	

\* Attach Additional Sheets If Necessary

**njk1314148570**



Animas Environmental Services, LLC

[www.animasenvironmental.com](http://www.animasenvironmental.com)

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

April 2, 2013

Lisa Hunter  
ConocoPhillips  
San Juan Business Unit  
Office 214-4  
5525 Hwy 64  
Farmington, New Mexico 87401

**RE: Initial Release Assessment and Final Excavation Report  
San Juan 28-7 #268  
Rio Arriba County, New Mexico**

Dear Ms. Hunter:

On July 26, 2012, and February 19 and 27, 2013, Animas Environmental Services, LLC (AES) completed an initial release assessment and environmental clearance of the final excavation limits at the ConocoPhillips (CoP) San Juan 28-7 #268, located in Rio Arriba County, New Mexico. A below grade tank (BGT) closure and initial release assessment were completed on July 26, 2012 at the location. Activities related to the BGT closure conducted on July 26, 2012, were documented in the AES report *San Juan 28-7 #268 BGT Closure and Release Report* dated August 31, 2012. The historical release was reported to be associated with the former BGT at the location. The final excavation was completed by CoP contractors prior to AES' arrival to the location on February 19, 2013. Following application of potassium permanganate to the excavation, a final confirmation sample was collected from the base of the excavation on February 27, 2013.

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## 1.0 Site Information

### 1.1 Location

Location - SE¼ SW¼, Section 19, T27N, R7W, Rio Arriba County, New Mexico

Well Head Latitude/Longitude - N36.55424 and W107.62003, respectively

Release Location Latitude/Longitude – N36.55420 and W107.61995, respectively

Land Jurisdiction – Bureau of Land Management (BLM)

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map

## 1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) database was reviewed, and no prior ranking information was located. The New Mexico Office of the State Engineer (NMOSE) database was reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery Research Center online mapping tool (<http://ford.nmt.edu/react/project.html>) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel further assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. AES personnel concluded that depth to groundwater at the site was greater than 100 feet below ground surface (bgs). An unnamed wash is located approximately 600 feet northwest of the location and drains to Cuervo Canyon. Based on this information, the location was assessed a ranking score of 10 per the NMOCD *Guidelines for Leaks, Spills, and Releases* (1993).

## 1.3 Assessment

AES was initially contacted by Doyle Clark, CoP representative, on July 25, 2012, and the same day, Deborah Watson and Corwin Lameman of AES completed the BGT closure and release assessment field work. The assessment included collection and field screening of 26 soil samples from nine test holes (TH-1 through TH-9). Based on the field screening results, AES recommended excavation of the release area. Sample locations are shown on Figure 3.

On February 19, 2013, AES returned to the location to collect confirmation soil samples of the excavation. The field screening activities included collection of five confirmation soil samples (SC-1 through SC-5) of the walls and base of the excavation. The final excavation was approximately 32.5 feet by 29 feet by 7.5 to 8 feet in depth. The depth of the excavation was limited by a competent sandstone layer present at about 7.5 to 8 feet bgs. Based on the field screening and laboratory analytical results from the base of the excavation, BLM and NMOCD requested application of potassium permanganate to the base of the excavation followed by collection of a confirmation soil sample (SC-6). The confirmation sample (SC-6) was collected from the base of the excavation on February 27, 2013. Sample locations and final excavation extents are presented on Figure 3.

## 2.0 Soil Sampling

A total of 26 soil samples (TH-1 through TH-9) and 6 composite samples (SC-1 through SC-6) were collected during the assessments. All soil samples were field screened for volatile organic compounds (VOCs), and selected samples were also analyzed for total petroleum hydrocarbons (TPH). Two of the soil samples (TH-4 and TH-8) collected during the initial assessment and two composite samples (SC-5 and SC-6) collected during the excavation were submitted for confirmation laboratory analysis.

### 2.1 Field Screening

#### 2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

#### 2.1.2 Total Petroleum Hydrocarbons

Field TPH samples were analyzed per U.S. Environmental Protection Agency (USEPA) Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical protocol followed AES's *Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1*.

### 2.2 Laboratory Analyses

The soil samples collected for laboratory analysis were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B or 8260B; and
- TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B.

### 2.3 Field Screening and Laboratory Analytical Results

On July 26, 2012, initial assessment field screening readings for VOCs via OVM ranged from 4.0 ppm in TH-8 and TH-9 up to 2,450 ppm in TH-5. Field TPH concentrations ranged from 147 mg/kg in TH-6 up to greater than 5,000 mg/kg in TH-1.

On February 19 and 27, 2013, final excavation field screening results for VOCs via OVM ranged from 1.3 ppm in SC-4 to 2,075 ppm in SC-5. Field TPH concentrations ranged from less than 20.0 mg/kg in SC-1 through SC-4 up to 5,140 mg/kg in SC-5. Results are included below in Table 1 and on Figures 3. The AES Field Screening Reports are attached.

Table 1. Soil Field Screening VOCs and TPH Results  
San Juan 28-7 #268 Release Assessment and Final Excavation  
July 2012 and February 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>Field TPH (mg/kg)</i>
<i>NMOCD Action Level*</i>			<i>100</i>	<i>1,000</i>
TH-1	7/26/12	6	<b>1,891</b>	<b>&gt;5,000</b>
TH-2	7/26/12	0.5	24.2	NA
		4	<b>330</b>	217
		5.5	6.2	NA
TH-3	7/26/12	0.5	27.2	NA
		3.5	87.2	318
		5.75	15.4	NA
TH-4	7/26/12	0.5	16.4	<b>NA</b>
		3.5	68.8	160
		6	<b>1,672</b>	972
TH-5	7/26/12	0.5	7.3	NA
		3.5	<b>284</b>	247
		6	<b>2,380</b>	NA
		7	<b>2,450</b>	<b>3,890</b>
TH-6	7/26/12	0.5	7.9	NA
		3.25	<b>137</b>	147
		6	<b>215</b>	166
TH-7	7/26/12	0.5	6.8	NA
		3.5	<b>153</b>	204
		6.25	<b>289</b>	280
TH-8	7/26/12	Surface	4.0	NA
		3.25	<b>475</b>	152
		6.25	42.0	280

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>	<i>Field TPH (mg/kg)</i>
<i>NMOCD Action Level*</i>			100	1,000
TH-9	7/26/12	Surface	25.0	NA
		3	6.1	524
		6.25	4.0	171
SC-1	2/19/13	1 to 7.5	58.7	<20.0
SC-2	2/19/13	1 to 8	2.3	<20.0
SC-3	2/19/13	1 to 7.5	37.7	<20.0
SC-4	2/19/13	1 to 8	1.3	<20.0
SC-5	2/19/13	7.5 to 8	<b>2,075</b>	<b>5,140</b>
SC-6	2/27/13	7.5 to 8	<b>472</b>	212

NA – Not Analyzed

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

Laboratory analyses for TH-4 and TH-8 were used to confirm field screening results from the initial assessment. Benzene concentrations in TH-4 and TH-8 were reported at less than 0.50 mg/kg and 0.050 mg/kg, respectively. Total BTEX concentrations were reported below laboratory detection limits, and TPH concentrations (as GRO/DRO) were reported at 1,190 mg/kg in TH-4.

Laboratory analytical results for SC-5 and SC-6 were used to confirm field screening results during excavation activities. Benzene concentrations were 289 mg/kg in SC-5 and 5.6 mg/kg in SC-6, and total BTEX concentrations were reported at 289 mg/kg (SC-5) and 5.6 mg/kg (SC-6). TPH concentrations (as GRO/DRO) were reported at 7,500 mg/kg and 444 mg/kg in SC-5 and SC-6, respectively. Results are presented in Table 2 and on Figures 3 and 4. Laboratory analytical reports are attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX and TPH  
San Juan 28-7 #268 Release Assessment and Final Excavation  
July 2012 and February 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>
<b>NMOCD Action Level*</b>			<b>10</b>	<b>50</b>	<b>1,000</b>	
TH-4	7/26/12	6	<0.50	<2.5	<b>610</b>	<b>580</b>
TH-8	7/26/12	3.25	<0.050	<0.25	NA	NA
SC-5	2/19/13	7.5 to 8	0.55	<b>289</b>	<b>5,600</b>	<b>1,900</b>
SC-6	2/27/13	7.5 to 8	<0.50	5.6	410	34

\*Action level determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993)

### 3.0 Conclusions and Recommendations

On July 26, 2012, AES conducted an initial assessment of a historical release from the former BGT tank at the San Juan 28-7 #268. Action levels for releases are determined by the NMOCD ranking score per *NMOCD Guidelines for Leaks, Spills, and Releases* (August 1993), and the site was assigned a ranking of 10. Field screening showed concentrations above the NMOCD action levels of 100 ppm VOCs and 100 mg/kg TPH in TH-1, TH-2, and TH-4 through TH-8. The highest VOC concentration was recorded as 2,450 ppm in TH-5, and the highest TPH concentration was reported in TH-1 with greater than 5,000 mg/kg.

Laboratory analytical results from July 26, 2012, reported benzene and total BTEX concentrations below the applicable NMOCD action levels in TH-4 and TH-8. TPH concentrations as GRO/DRO in TH-4 exceeded the NMOCD action level with 1,190 mg/kg.

On February 19, 2013, final assessment of the excavation area was completed. Field screening results of the excavation showed that VOC and TPH concentrations were reported below applicable NMOCD action levels for all of the final four walls of the excavation. However, field screening of the base (SC-5) exceeded the NMOCD action level of 100 ppm VOCs and 1,000 mg/kg TPH with 2,075 ppm and 5,140 mg/kg, respectively. Laboratory analytical results confirmed that concentrations exceeded the NMOCD action levels with concentrations of total BTEX reported at 289 mg/kg and TPH (GRO/DRO) reported at 7,500 mg/kg.

Because of the presence of competent sandstone at the site, the base of the excavation was not extended beyond 8 feet bgs. At the request of Mark Kelly, BLM, and Brandon


Powell, NMOCD, potassium permanganate was applied to the base of the excavation on February 26, 2013. Composite sample SC-6 was collected from the base on February 27, 2013. Field and laboratory analytical results reported VOCs, TPH, benzene, and total BTEX below applicable NMOCD action levels in SC-6. Approval to backfill was granted by Brandon Powell of NMOCD on March 3, 2013. No further work is recommended for the release area at the San Juan 28-7 #268.

If you have any questions about this report or site conditions, please do not hesitate to contact Deborah Watson at (505) 564-2281.

Sincerely,



Heather M. Woods  
Staff Geologist



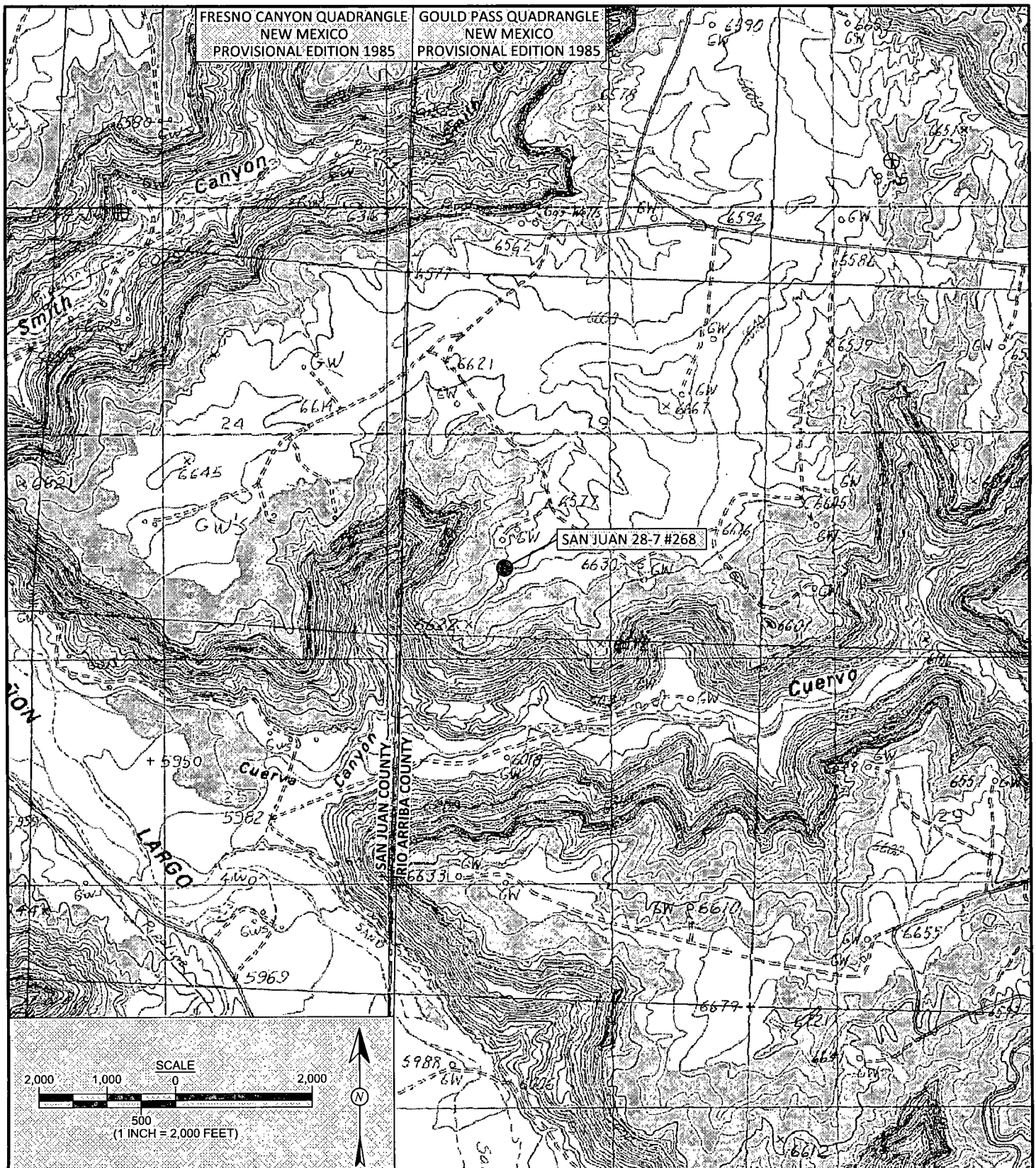
Elizabeth McNally, PE

Attachments:

- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map
- Figure 3. Initial Assessment Sample Locations and Results, July 2012
- Figure 4. Final Excavation Sample Locations and Results, February 2013
- AES Field Screening Report 072612, 021913, and 022713
- Hall Laboratory Analytical Reports 1207B98, 1207C51, 13026647, and 1302916

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<b>DRAWN BY:</b>	<b>DATE DRAWN:</b>
C. Lameman	July 27, 2012
<b>REVISIONS BY:</b>	<b>DATE REVISED:</b>
C. Lameman	July 27, 2012
<b>CHECKED BY:</b>	<b>DATE CHECKED:</b>
D. Watson	July 27, 2012
<b>APPROVED BY:</b>	<b>DATE APPROVED:</b>
E. McNally	July 27, 2012

## FIGURE 1

**TOPOGRAPHIC SITE LOCATION MAP**  
 ConocoPhillips  
 SAN JUAN 28-7 #268  
 RIO ARriba COUNTY, NEW MEXICO  
 SE¼, SW¼, SECTION 19, T27N, R7W  
 N36.55424, W107.62003



<b>DRAWN BY:</b> C. Lameman	<b>DATE DRAWN:</b> July 27, 2012
<b>REVISIONS BY:</b> C. Lameman	<b>DATE REVISED:</b> July 27, 2012
<b>CHECKED BY:</b> D. Watson	<b>DATE CHECKED:</b> July 27, 2012
<b>APPROVED BY:</b> E. McNally	<b>DATE APPROVED:</b> July 27, 2012

## FIGURE 2

**AERIAL SITE MAP**  
 ConocoPhillips  
 SAN JUAN 28-7 #268  
 RIO ARriba COUNTY, NEW MEXICO  
 SE¼, SW¼, SECTION 19, T27N, R7W  
 N36.55424, W107.62003





# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

Client: ConocoPhillips

Project Location: San Juan 28-7 #268

Date: 7/26/2012

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Matrix: Soil

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-1 @ 6'	7/26/2013	11:05	1,891	13:52	>5,000	40.0	1	DAW
TH-2 @ 0.5'	7/26/2013	12:10	24.2	Not Analyzed for TPH				
TH-2 @ 4'	7/26/2013	11:08	330	13:43	217	40.0	1	DAW
TH-2 @ 5.5'	7/26/2013	11:10	6.2	Not Analyzed for TPH				
TH-3 @ 0.5'	7/26/2013	12:14	27.2	Not Analyzed for TPH				
TH-3 @ 3.5'	7/26/2013	1:12	87.2	13:41	318	40.0	1	DAW
TH-3 @ 5.75'	7/26/2013	11:15	15.4	Not Analyzed for TPH				
TH-4 @ 0.5'	7/26/2013	12:18	16.4	Not Analyzed for TPH				
TH-4 @ 3.5'	7/26/2013	11:23	68.8	13:29	160	40.0	1	DAW
TH-4 @ 6'	7/26/2013	11:25	1,672	13:32	972	40.0	1	DAW
TH-5 @ 0.5'	7/26/2013	12:22	7.3	Not Analyzed for TPH				
TH-5 @ 3.5'	7/26/2013	11:30	284	13:45	247	40.0	1	DAW
TH-5 @ 6'	7/26/2013	11:34	2,380	Not Analyzed for TPH				
TH-5 @ 7'	7/26/2013	11:35	2,450	13:47	3,890	40.0	1	DAW
TH-6 @ 0.5'	7/26/2013	12:26	7.9	Not Analyzed for TPH				
TH-6 @ 3.25'	7/26/2013	11:37	137	13:16	147	40.0	1	DAW
TH-6 @ 6'	7/26/2013	11:40	215	13:19	166	40.0	1	DAW
TH-7 @ 0.5'	7/26/2013	12:30	6.8	Not Analyzed for TPH				
TH-7 @ 3.5'	7/26/2013	11:43	153	13:22	204	40.0	1	DAW
TH-7 @ 6.25'	7/26/2013	11:48	289	13:26	280	40.0	1	DAW
TH-8 @ Surface	7/26/2013	12:35	4.0	Not Analyzed for TPH				
TH-8 @ 3.25'	7/26/2013	11:52	475	13:35	152	40.0	1	DAW

San Juan 28-7 #268

Page 1

Report Finalized: 07/26/12

Sample ID	Collection Date	Collection Time	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
TH-8 @ 6.25'	7/26/2013	11:55	42.0	13:38	280	40.0	1	DAW
TH-9 @ Surface	7/26/2013	14:08	25.0	Not Analyzed for TPH				
TH-9 @ 3'	7/26/2013	14:02	6.1	14:22	524	40.0	1	DAW
TH-9 @ 6.25'	7/26/2013	14:05	4.0	14:24	171	40.0	1	DAW

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit  
ND Not Detected at the Reporting Limit  
DF Dilution Factor  
NA Not Analyzed

Analyst:

*Debrah Wata*

# AES Field Screening Report



Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-7 #268

Date: 2/19/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-1	2/19/2013	8:35	North Wall	58.7	9:19	<20.0	20.0	1	HMW
SC-2	2/19/2013	8:37	South Wall	2.3	9:21	<20.0	20.0	1	HMW
SC-3	2/19/2013	8:40	East Wall	37.7	9:23	<20.0	200	1	HMW
SC-4	2/19/2013	8:42	West Wall	1.3	9:26	<20.0	20.0	1	HMW
SC-5	2/19/2013	8:45	Base	2,075	9:28	5,140	40.0	1	HMW

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit  
ND Not Detected at the Reporting Limit  
DF Dilution Factor  
NA Not Analyzed

Analyst:

*Leather M. Woods*



# AES Field Screening Report



Animas Environmental Services, LLC

[www.animasenvironmental.com](http://www.animasenvironmental.com)

624 E. Comanche  
Farmington, NM 87401  
505-564-2281

Durango, Colorado  
970-403-3084

Client: ConocoPhillips

Project Location: San Juan 28-7 #268

Date: 2/27/2013

Matrix: Soil

Sample ID	Collection Date	Collection Time	Sample Location	OVM (ppm)	Time of Sample Analysis	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
SC-6	2/27/2013	8:50	Base	472	9:20	212	20.0	1	DAW

Total Petroleum Hydrocarbons - USEPA 418.1

PQL Practical Quantitation Limit  
ND Not Detected at the Reporting Limit  
DF Dilution Factor  
NA Not Analyzed

Analyst:

*Debrah Water*





*Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)*

August 03, 2012

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-1776  
FAX (505) 324-2022

RE: COP San Juan 28-7 #26 8

OrderNo.: 1207B98

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/27/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207B98

Date Reported: 8/3/2012

**CLIENT:** Animas Environmental Services

**Client Sample ID:** TH-8 @ 3'4"

**Project:** COP San Juan 28-7 #26 8

**Collection Date:** 7/26/2012 11:52:00 AM

**Lab ID:** 1207B98-001

**Matrix:** MEOH (SOIL)

**Received Date:** 7/27/2012 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/27/2012 2:21:20 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2012 2:21:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2012 2:21:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2012 2:21:20 PM
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	7/27/2012 2:21:20 PM

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207B98

03-Aug-12

Client: Animas Environmental Services

Project: COP San Juan 28-7 #26 8

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	R4472	RunNo:	4472					
Prep Date:		Analysis Date:	7/27/2012	SeqNo:	125498	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	R4472	RunNo:	4472					
Prep Date:		Analysis Date:	7/27/2012	SeqNo:	125499	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.050	1.000	0	95.9	76.3	117			
Toluene	0.97	0.050	1.000	0	97.0	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.3	77	116			
Xylenes, Total	3.0	0.10	3.000	0	99.1	76.7	117			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

## Sample Log-In Check List

Client Name:	Animas Environmental	Work Order Number:	1207B98
Received by/date:	AT 07/27/12		
Logged By:	Ashley Gallegos	7/27/2012 10:00:00 AM	AS
Completed By:	Ashley Gallegos	7/27/2012 10:06:56 AM	AS
Reviewed By:	[Signature] 07/27/12		

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved bottles checked for pH: \_\_\_\_\_  
(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<div style="border-bottom: 1px solid black; height: 15px;"></div>	Date:	<div style="border-bottom: 1px solid black; height: 15px;"></div>
By Whom:	<div style="border-bottom: 1px solid black; height: 15px;"></div>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<div style="border-bottom: 1px solid black; height: 15px;"></div>		
Client Instructions:	<div style="border-bottom: 1px solid black; height: 15px;"></div>		

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>Animas Environmental</u>	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush <u>Same day</u>
<u>services LLC</u>	Project Name:	
Mailing Address: <u>624 E Comanche</u>	<u>CoP San Juan 28-7 #268</u>	
<u>Farmington NM 87401</u>	Project #:	
Phone #: <u>505 564 2281</u>		
email or Fax#:	Project Manager:	
QA/QC Package:	<u>R. Kennemer</u>	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)	
Accreditation	Sampler: <u>D. Watson</u>	
<input type="checkbox"/> NELAP	<input checked="" type="checkbox"/> On Ice <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Other _____	Sample Temperature: <u>2</u>	
<input type="checkbox"/> EDD (Type) _____		

☐ Standard

☒ Rush same day

Project Name:

CoP San Juan 28-7 #268

Project #:

**Project Manager:**

R. Kennemer

Sampler: D. Watson

On Ice ☒ Yes ☐ No

**Sample Temperature:**

# HEALING

1267698

\_\_\_\_\_

A 3x3 grid. The central square (row 2, column 2) is shaded with a dense stippled pattern. The four corner squares (row 1, column 1; row 1, column 3; row 3, column 1; row 3, column 3) each contain a small cluster of stars. The middle squares (row 1, column 2; row 2, column 1; row 2, column 3; row 3, column 2) are empty.

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975      Fax 505-345-4107

## Analysis Request

		X	BTEX + <del>MtBE + TPH's</del> (8021)
			BTEX + MTBE + TPH (Gas only)
			TPH Method 8015B (Gas/Diesel))
			TPH (Method 418.1)
			EDB (Method 504.1)
			8310 (PNA or PAH)
			RCRA 8 Metals
			Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )
			8081 Pesticides / 8082 PCB's
			8260B (VOA)
			8270 (Semi-VOA)
			Air Bubbles (Y or N)

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/26/12	1703	Deborah Water	Christine Wcelers	7/26/12	1703
Date:	Time:	Relinquished by:	Received by:	Date	Time
7/26/12	1751	Christine Wcelers	Christine Wcelers	07/27/11	

Remarks:	Bill to ConocoPhillips
----------	------------------------



*Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)*

August 07, 2012

Ross Kennemer  
Animas Environmental Services  
624 East Comanche  
Farmington, NM 87401  
TEL: (505) 486-1776  
FAX: (505) 324-2022

RE: COP SJ 28-7 #268

OrderNo.: 1207C51

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/28/2012 for the analyses presented in the following report:

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1207C51

Date Reported: 8/7/2012

CLIENT: Animas Environmental Services

Client Sample ID: TH-4@6'

Project: COP SJ 28-7 #268

Collection Date: 7/26/2012 11:25:00 AM

Lab ID: 1207C51-001

Matrix: MEOH (SOIL)

Received Date: 7/28/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JMP
Diesel Range Organics (DRO)	580	10		mg/Kg	1	7/30/2012 11:56:09 AM
Surr: DNOP	118	77.6-140		%REC	1	7/30/2012 11:56:09 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: RAA
Benzene	ND	0.50		mg/Kg	10	7/30/2012 3:07:04 PM
Toluene	ND	0.50		mg/Kg	10	7/30/2012 3:07:04 PM
Ethylbenzene	ND	0.50		mg/Kg	10	7/30/2012 3:07:04 PM
Xylenes, Total	ND	1.0		mg/Kg	10	7/30/2012 3:07:04 PM
Surr: 1,2-Dichloroethane-d4	83.0	70-130		%REC	10	7/30/2012 3:07:04 PM
Surr: 4-Bromofluorobenzene	167	70-130	S	%REC	10	7/30/2012 3:07:04 PM
Surr: Dibromofluoromethane	77.8	70-130		%REC	10	7/30/2012 3:07:04 PM
Surr: Toluene-d8	85.2	70-130		%REC	10	7/30/2012 3:07:04 PM
<b>EPA METHOD 8015B MOD: GASOLINE RANGE</b>						Analyst: RAA
Gasoline Range Organics (GRO)	610	50		mg/Kg	10	7/30/2012 3:07:04 PM
Surr: BFB	167	70-130	S	%REC	10	7/30/2012 3:07:04 PM

**Qualifiers:**   \*/X   Value exceeds Maximum Contaminant Level.  
                  E    Value above quantitation range  
                  J    Analyte detected below quantitation limits  
                  R    RPD outside accepted recovery limits  
                  S    Spike Recovery outside accepted recovery limits

                  B    Analyte detected in the associated Method Blank  
                  H    Holding times for preparation or analysis exceeded  
                  ND   Not Detected at the Reporting Limit  
                  RL   Reporting Detection Limit  
                  U    Samples with CalcVal < MDL

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207C51

07-Aug-12

Client: Animas Environmental Services

Project: COP SJ 28-7 #268

Sample ID: <b>MB-3074</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>					
Client ID: <b>PBS</b>	Batch ID: <b>3074</b>				RunNo: <b>4495</b>					
Prep Date: <b>7/27/2012</b>	Analysis Date: <b>7/30/2012</b>				SeqNo: <b>126019</b>	Units: <b>%REC</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		96.8	77.6	140			

Sample ID: <b>LCS-3074</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>3074</b>				RunNo: <b>4495</b>					
Prep Date: <b>7/27/2012</b>	Analysis Date: <b>7/30/2012</b>				SeqNo: <b>126020</b>	Units: <b>%REC</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		80.6	77.6	140			

Sample ID: <b>MB-3088</b>	SampType: <b>MBLK</b>				TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>					
Client ID: <b>PBS</b>	Batch ID: <b>3088</b>				RunNo: <b>4495</b>					
Prep Date: <b>7/30/2012</b>	Analysis Date: <b>7/30/2012</b>				SeqNo: <b>126084</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.4	77.6	140			

Sample ID: <b>LCS-3088</b>	SampType: <b>LCS</b>				TestCode: <b>EPA Method 8015B: Diesel Range Organics</b>					
Client ID: <b>LCSS</b>	Batch ID: <b>3088</b>				RunNo: <b>4495</b>					
Prep Date: <b>7/30/2012</b>	Analysis Date: <b>7/30/2012</b>				SeqNo: <b>126126</b>	Units: <b>mg/Kg</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	69.1	52.6	130			
Surr: DNOP	4.0		5.000		79.8	77.6	140			

### Qualifiers:

\* / X Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207C51

07-Aug-12

Client: Animas Environmental Services

Project: COP SJ 28-7 #268

Sample ID: <b>b2</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R4514</b>	RunNo: <b>4514</b>								
Prep Date:	Analysis Date: <b>7/30/2012</b>	SeqNo: <b>127896</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.8	70	130			
Surr: 4-Bromofluorobenzene	0.40		0.5000		80.5	70	130			
Surr: Dibromofluoromethane	0.39		0.5000		78.8	70	130			
Surr: Toluene-d8	0.41		0.5000		81.2	70	130			

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>R4514</b>	RunNo: <b>4514</b>								
Prep Date:	Analysis Date: <b>7/30/2012</b>	SeqNo: <b>127897</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.050	1.000	0	97.0	70.7	123			
Toluene	1.0	0.050	1.000	0	102	80	120			
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		83.1	70	130			
Surr: 4-Bromofluorobenzene	0.41		0.5000		81.7	70	130			
Surr: Dibromofluoromethane	0.38		0.5000		76.8	70	130			
Surr: Toluene-d8	0.41		0.5000		82.4	70	130			

Sample ID: <b>1207c51-001ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>TH-4@6'</b>	Batch ID: <b>R4514</b>	RunNo: <b>4514</b>								
Prep Date:	Analysis Date: <b>7/30/2012</b>	SeqNo: <b>127898</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	6.7	0.50	7.145	0	93.1	81.3	119			
Toluene	7.1	0.50	7.145	0	98.8	75	121			
Surr: 1,2-Dichloroethane-d4	3.1		3.573		87.5	70	130			
Surr: 4-Bromofluorobenzene	5.1		3.573		143	70	130			S
Surr: Dibromofluoromethane	2.9		3.573		81.4	70	130			
Surr: Toluene-d8	2.9		3.573		80.7	70	130			

Sample ID: <b>1207c51-001amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>TH-4@6'</b>	Batch ID: <b>R4514</b>	RunNo: <b>4514</b>								
Prep Date:	Analysis Date: <b>7/30/2012</b>	SeqNo: <b>127899</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	6.5	0.50	7.145	0	91.5	81.3	119	1.68	15.7	
Toluene	7.5	0.50	7.145	0	105	75	121	6.31	16.2	
Surr: 1,2-Dichloroethane-d4	2.8		3.573		79.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	4.9		3.573		137	70	130	0	0	S

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207C51

07-Aug-12

Client: Animas Environmental Services

Project: COP SJ 28-7 #268

Sample ID: 1207c51-001amsd	SampType: MSD	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: TH-4@6'	Batch ID: R4514	RunNo: 4514								
Prep Date:	Analysis Date: 7/30/2012	SeqNo: 127899		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	2.8		3.573		77.9	70	130	0	0	
Surr: Toluene-d8	2.9		3.573		82.3	70	130	0	0	

## Qualifiers:

\* / X Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1207C51

07-Aug-12

Client: Animas Environmental Services

Project: COP SJ 28-7 #268

Sample ID: <b>b2</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015B Mod: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>R4514</b>		RunNo: <b>4514</b>							
Prep Date:	Analysis Date: <b>7/30/2012</b>		SeqNo: <b>127882</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	400		500.0		80.5	70	130			

Sample ID: <b>2.5ug lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015B Mod: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>R4514</b>		RunNo: <b>4514</b>							
Prep Date:	Analysis Date: <b>7/30/2012</b>		SeqNo: <b>127884</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.0	85	115			
Surr: BFB	400		500.0		79.9	70	130			

Sample ID: <b>1207c51-001amsg</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015B Mod: Gasoline Range</b>							
Client ID: <b>TH-4@6'</b>	Batch ID: <b>R4514</b>		RunNo: <b>4514</b>							
Prep Date:	Analysis Date: <b>7/30/2012</b>		SeqNo: <b>127885</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	770	50	178.6	605.9	92.6	70	130			
Surr: BFB	5800		3572		161	70	130			S

Sample ID: <b>1207c51-001amsdg</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015B Mod: Gasoline Range</b>							
Client ID: <b>TH-4@6'</b>	Batch ID: <b>R4514</b>		RunNo: <b>4514</b>							
Prep Date:	Analysis Date: <b>7/30/2012</b>		SeqNo: <b>127886</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	720	50	178.6	605.9	62.4	70	130	7.25	20	S
Surr: BFB	5000		3572		140	70	130	0	0	S

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

## Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1207C51  
Received by/date: AF 01/08/12  
Logged By: Lindsay Mangin 7/28/2012 12:00:00 PM [Signature]  
Completed By: Lindsay Mangin 7/30/2012 7:32:29 AM [Signature]  
Reviewed By: AF 07/30/12

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.2	Good	Yes			

## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

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X +								

MM	(M)	(M)	(F)	RA	SUN	1 P	OB	(S)
X +								

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						X
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arks: ~~Day~~ to ConzoPhillips

10254953 Supervisor: Much F

User ID: Benale

Order by: Doyle Cl  
side: C200

arks: ~~Day~~ to ConzoPhillips

10254953 Supervisor: Much F

User ID: Benale

Order by: Doyle Cl  
side: C200

arks: ~~Day~~ to ConzoPhillips

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arks: ~~Day~~ to ConzoPhillips

10254953 Supervisor: Much F

User ID: Benale

Order by: Doyle Cl  
side: C200



*Hall Environmental Analysis Laboratory*  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

February 26, 2013

Debbie Watson

Animas Environmental Services

624 East Comanche

Farmington, NM 87401

TEL: (505) 486-4071

FAX

RE: CoP San Juan 28-7 #268

OrderNo.: 1302647

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/20/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1302647

Date Reported: 2/26/2013

**CLIENT:** Animas Environmental Services

**Client Sample ID:** SC-5

**Project:** CoP San Juan 28-7 #268

**Collection Date:** 2/19/2013 8:45:00 AM

**Lab ID:** 1302647-001

**Matrix:** SOIL

**Received Date:** 2/20/2013 10:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	1900	100		mg/Kg	10	2/25/2013 10:56:45 PM
Surr: DNOP	0	72.4-120	S	%REC	10	2/25/2013 10:56:45 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	5600	1000		mg/Kg	200	2/20/2013 1:14:42 PM
Surr: BFB	233	84-116	S	%REC	200	2/20/2013 1:14:42 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	0.55	0.50		mg/Kg	20	2/20/2013 11:19:44 AM
Toluene	18	1.0		mg/Kg	20	2/20/2013 11:19:44 AM
Ethylbenzene	20	1.0		mg/Kg	20	2/20/2013 11:19:44 AM
Xylenes, Total	250	20		mg/Kg	200	2/20/2013 1:14:42 PM
Surr: 4-Bromofluorobenzene	118	80-120		%REC	200	2/20/2013 1:14:42 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1302647

26-Feb-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #268

Sample ID	MB-6181		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS		Batch ID: 6181		RunNo: 8746					
Prep Date:	2/20/2013		Analysis Date: 2/20/2013		SeqNo: 250652		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		113	72.4	120			

Sample ID	LCS-6181		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 6181		RunNo: 8746					
Prep Date:	2/20/2013		Analysis Date: 2/20/2013		SeqNo: 250653		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	47.4	122			
Surr: DNOP	5.7		5.000		115	72.4	120			

Sample ID	MB-6218		SampType: MBLK		TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS		Batch ID: 6218		RunNo: 8825					
Prep Date:	2/22/2013		Analysis Date: 2/25/2013		SeqNo: 252344		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		87.4	72.4	120			

Sample ID	LCS-6218		SampType: LCS		TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS		Batch ID: 6218		RunNo: 8825					
Prep Date:	2/22/2013		Analysis Date: 2/25/2013		SeqNo: 252345		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.2		5.000		104	72.4	120			

Sample ID	1302682-003AMS		SampType: MS		TestCode: EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC		Batch ID: 6218		RunNo: 8825					
Prep Date:	2/22/2013		Analysis Date: 2/25/2013		SeqNo: 252504		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		4.878		86.9	72.4	120			

Sample ID	1302682-003AMSD			SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics			
Client ID:	BatchQC			Batch ID:	6218		RunNo:	8825			
Prep Date:	2/22/2013			Analysis Date:	2/25/2013		SeqNo:	252807		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.6		4.808		95.2	72.4	120	0	0		

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1302647

26-Feb-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #268

Sample ID	MB-6164		SampType: MBLK		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	PBS		Batch ID: R8748		RunNo: 8748					
Prep Date:	2/19/2013		Analysis Date: 2/20/2013		SeqNo: 250906		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	84	116			

Sample ID	LCS-6164		SampType: LCS		TestCode: EPA Method 8015B: Gasoline Range					
Client ID:	LCSS		Batch ID: R8748		RunNo: 8748					
Prep Date:	2/19/2013		Analysis Date: 2/20/2013		SeqNo: 250907		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	25.00	0	123	62.6	136			
Surr: BFB	1300		1000		132	84	116			S

Sample ID	MB-6164		SampType:	MBLK		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS		Batch ID:	6164		RunNo:	8748				
Prep Date:	2/19/2013		Analysis Date:	2/20/2013		SeqNo:	250910		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	1000		1000		104	84	116				

Sample ID	LCS-6164		SampType:	LCS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS		Batch ID:	6164		RunNo:	8748				
Prep Date:	2/19/2013		Analysis Date:	2/20/2013		SeqNo:	250911		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	1300		1000		132	84	116			S	

Sample ID	1302581-001AMS		SampType:	MS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC		Batch ID:	6164		RunNo:	8748				
Prep Date:	2/19/2013		Analysis Date:	2/20/2013		SeqNo:	250915		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	1100		985.2		112	84	116				

Sample ID	1302581-001AMSD		SampType:	MSD		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC		Batch ID:	6164		RunNo:	8748				
Prep Date:	2/19/2013		Analysis Date:	2/20/2013		SeqNo:	250916		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: BFB	1100		986.2		113	84	116	0	0		

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1302647

26-Feb-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #268

Sample ID	MB-6164		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS		Batch ID: R8748		RunNo: 8748					
Prep Date:	2/19/2013		Analysis Date: 2/20/2013		SeqNo: 250972		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	LCS-6164		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: R8748		RunNo: 8748					
Prep Date:	2/19/2013		Analysis Date: 2/20/2013		SeqNo: 250973		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.050	1.000	0	92.1	80	120			
Toluene	0.91	0.050	1.000	0	90.8	80	120			
Ethylbenzene	0.92	0.050	1.000	0	91.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.7	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	MB-6164		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS		Batch ID:	6164		RunNo:	8748				
Prep Date:	2/19/2013		Analysis Date:	2/20/2013		SeqNo:	250976		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120				

Sample ID	LCS-6164		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	LCSS		Batch ID:	6164		RunNo:	8748				
Prep Date:	2/19/2013		Analysis Date:	2/20/2013		SeqNo:	250977		Units: %REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120				

Sample ID	1302581-002AMS		SampType: MS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	BatchQC		Batch ID: 6164		RunNo: 8748					
Prep Date:	2/19/2013		Analysis Date: 2/20/2013		SeqNo: 250983		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		0.9372		110	80	120			

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1302647

26-Feb-13

Client: Animas Environmental Services

Project: CoP San Juan 28-7 #268

Sample ID	1302581-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	BatchQC	Batch ID:	6164	RunNo:	8748					
Prep Date:	2/19/2013	Analysis Date:	2/20/2013	SeqNo:	250984	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		0.9921		108	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1302647

Received by/date: AG 02/20/13

Logged By: Lindsay Mangin 2/20/2013 10:40:00 AM [Signature]

Completed By: Lindsay Mangin 2/20/2013 10:45:18 AM [Signature]

Reviewed By: mg 02/20/13

## Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

## Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH: \_\_\_\_\_  
(<2 or >12 unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

## Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

18. Additional remarks:

## 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client: <u>Animas Environmental Services</u>	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush <u>Same Day</u>
Mailing Address: <u>624 E. Comanche</u>	Project Name: <u>Col San Juan 28-7 #26B</u>	
<u>Farmington, NM 87401</u>	Project #:	
Phone #: <u>505-564-2281</u>	Project Manager:	
email or Fax#:	<u>D. Watson</u>	
QA/QC Package:	Sampler: <u>H. Woods</u>	
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	On Site: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Accreditation	Sample Temperature: <u>18</u>	
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		
<input type="checkbox"/> EDD (Type) _____		

☐ Standard ☒ Rush Same Day

Col San Juan 28-7 #268

**Project Manager:**

Sampler: H. Woods

On Ice ☒ Yes ☐ No


Sample Temperature:	
---------------------	--

[illegible]

Date:	Time:	Relinquished by:
2/19/13	1658	Leathe M. Woods

Date:	Time:	Relinquished by:
2/19/13	1721	Christina Doe

Received by:	Date	Time
Christine Walter	2/19/13	1658

Received by:  Date: 02/20/3 Time: 1040

Remarks:	Bill to Conocophillips
----------	------------------------

W0: 9221530

Area: 23

Activity Code: D150

Supervisor: Mike Smith

User: KGARCIA

Ordered by: Eric Smith



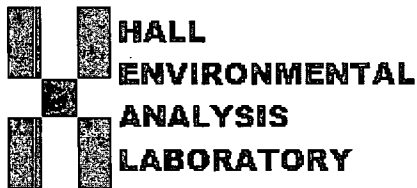
[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975      Fax 505-345-4107

## Analysis Request

[illegible]



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 01, 2013

Debbie Watson

Animas Environmental Services

624 East Comanche

Farmington, NM 87401

TEL: (505) 486-4071

FAX

RE: CoP SJ 28-7 #268

OrderNo.: 1302916

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/28/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1302916

Date Reported: 3/1/2013

CLIENT: Animas Environmental Services

Client Sample ID: SC-6

Project: CoP SJ 28-7 #268

Collection Date: 2/27/2013 8:50:00 AM

Lab ID: 1302916-001

Matrix: MEOH (SOIL)

Received Date: 2/28/2013 9:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>MMD</b>
Diesel Range Organics (DRO)	34	9.8		mg/Kg	1	2/28/2013 1:22:00 PM
Surr: DNOP	109	72.4-120		%REC	1	2/28/2013 1:22:00 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	410	100		mg/Kg	20	2/28/2013 12:11:40 PM
Surr: BFB	256	84-116	S	%REC	20	2/28/2013 12:11:40 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.50		mg/Kg	20	2/28/2013 12:11:40 PM
Toluene	ND	1.0		mg/Kg	20	2/28/2013 12:11:40 PM
Ethylbenzene	ND	1.0		mg/Kg	20	2/28/2013 12:11:40 PM
Xylenes, Total	5.6	2.0		mg/Kg	20	2/28/2013 12:11:40 PM
Surr: 4-Bromofluorobenzene	114	80-120		%REC	20	2/28/2013 12:11:40 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1302916

01-Mar-13

Client: Animas Environmental Services

Project: CoP SJ 28-7 #268

Sample ID	<b>MB-6278</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 8015B: Diesel Range Organics</b>			
Client ID:	<b>PBS</b>		Batch ID:	<b>6278</b>		RunNo:	<b>8891</b>			
Prep Date:	<b>2/28/2013</b>		Analysis Date:	<b>2/28/2013</b>		SeqNo:	<b>254152</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		106	72.4	120			

Sample ID	<b>LCS-6278</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 8015B: Diesel Range Organics</b>			
Client ID:	<b>LCSS</b>		Batch ID:	<b>6278</b>		RunNo:	<b>8891</b>			
Prep Date:	<b>2/28/2013</b>		Analysis Date:	<b>2/28/2013</b>		SeqNo:	<b>254153</b>		Units: <b>mg/Kg</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	47.4	122			
Surr: DNOP	5.6		5.000		112	72.4	120			

## Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1302916

01-Mar-13

Client: Animas Environmental Services

Project: CoP SJ 28-7 #268

Sample ID	MB-6270	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	R8894	RunNo:	8894					
Prep Date:	2/27/2013	Analysis Date:	2/28/2013	SeqNo:	254504	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		106	84	116			

Sample ID	LCS-6270	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	R8894	RunNo:	8894					
Prep Date:	2/27/2013	Analysis Date:	2/28/2013	SeqNo:	254505	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	129	62.6	136			
Surr: BFB	1400		1000		138	84	116			S

Sample ID	MB-6270	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	6270	RunNo:	8894					
Prep Date:	2/27/2013	Analysis Date:	2/28/2013	SeqNo:	254526	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		106	84	116			

Sample ID	LCS-6270	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	6270	RunNo:	8894					
Prep Date:	2/27/2013	Analysis Date:	2/28/2013	SeqNo:	254527	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1400		1000		138	84	116			S

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1302916

01-Mar-13

Client: Animas Environmental Services

Project: CoP SJ 28-7 #268

Sample ID	MB-6270		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	6270		RunNo:	8894			
Prep Date:	2/27/2013		Analysis Date:	2/28/2013		SeqNo:	254558		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	LCS-6270		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	6270		RunNo:	8894			
Prep Date:	2/27/2013		Analysis Date:	2/28/2013		SeqNo:	254559		Units: %REC	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Sample ID	1302914-001AMS		SampType:	MS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC		Batch ID:	R8894		RunNo:	8894			
Prep Date:			Analysis Date:	2/28/2013		SeqNo:	254599		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.51	0.050	0.5368	0	94.1	67.2	113			
Toluene	0.50	0.050	0.5368	0	93.5	62.1	116			
Ethylbenzene	0.51	0.050	0.5368	0	94.3	67.9	127			
Xylenes, Total	1.5	0.10	1.610	0	95.5	60.6	134			
Surr: 4-Bromofluorobenzene	0.61		0.5368		113	80	120			

Sample ID	1302914-001AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	BatchQC		Batch ID:	R8894		RunNo:	8894			
Prep Date:			Analysis Date:	2/28/2013		SeqNo:	254600		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.50	0.050	0.5368	0	92.5	67.2	113	1.74	14.3	
Toluene	0.49	0.050	0.5368	0	91.6	62.1	116	1.98	15.9	
Ethylbenzene	0.50	0.050	0.5368	0	92.5	67.9	127	1.89	14.4	
Xylenes, Total	1.5	0.10	1.610	0	92.8	60.6	134	2.83	12.6	
Surr: 4-Bromofluorobenzene	0.46		0.5368		86.1	80	120	0	0	

### Qualifiers:

\* Value exceeds Maximum Contaminant Level.  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH greater than 2

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits

## Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1302916

Received by/date: AG 02/28/13

Logged By: Michelle Garcia 2/28/2013 9:59:00 AM

*Michelle Garcia*

Completed By: Michelle Garcia 2/28/2013 10:14:20 AM

*Michelle Garcia*

Reviewed By: TO 02/28/2013

### Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
15. Is it clear what analyses were requested? Yes ☒ No ☐
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_

Date: \_\_\_\_\_

By Whom: \_\_\_\_\_

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	
Client: <u>Animas Environmental Services</u>		<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush <u>Same day</u>
Mailing Address: <u>624 E. Comanche</u>		Project Name: <u>CoP SJ 28-7#268</u>	
<u>Farmington, NM 87401</u>		Project #:	
Phone #: <u>505-564-2281</u>		Project Manager:	
email or Fax#:		<u>D. Watson</u>	
QA/QC Package:			
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)			
Accreditation		Sampler: <u>DW / AR</u>	
<input type="checkbox"/> NELAP <input type="checkbox"/> Other _____		On/ice <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<input type="checkbox"/> EDD (Type) _____		Sample Temperature: <u>5</u>	

Mailing Address: 624 E. Comanche

Farmington, NM 87401

Phone #: 905-564-2281

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

## Accreditation

☐ NELAP      ☐ Other \_\_\_\_\_

☐ EDD (Type) \_\_\_\_\_[illegible]

Date:	Time:	Relinquished by:
2/27/13	1708	Debrah Water

Date:	Time:	Relinquished by:
27/13	1726	Christine Weller

**Turn-Around Time:**

☐ Standard ☒ Rush Same day

Project Name:

CP SJ 28-7#268

Project #:

**Project Manager:**

D. Watson

Sampler: DW / AR

On Ice ☒ Yes ☐ No

Sample Temperature: 25

Container  
Type and #Preservative  
Type

# HEALING

3000

BTEX + ~~WET~~ + ~~WET~~ S (8021)

BTEX + MTBE + TPH (Gas only)

TPH 8015B (GRC) (DRO / ~~TARO~~)

TPH (Method 418.1)

EDB (Method 504.1)

PAH's (8310 or 8270 SIMS)

RCRA 8 Metals

Anions (F, Cl, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)



# HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975      Fax 505-345-4107

## Analysis Request

X	BTEX + <del>PAH's</del> + <del>MTBE</del> s (8021)
	BTEX + MTBE + TPH (Gas only)
X	TPH 8015B (GRO) <del>(DRO)</del> <del>(HARO)</del>
	TPH (Method 418.1)
	EDB (Method 504.1)
	PAH's (8310 or 8270 SIMS)
	RCRA 8 Metals
	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )
	8081 Pesticides / 8082 PCB's
	8260B (VOA)
	8270 (Semi-VOA)

Remarks: Bill to ConocoPhillips  
 WOI: 9221530 User: KBARCIA  
 Area: 23 ordered by: Eric Smith  
 Supp: Mike Smully